1850MNRAS..11...41M

Extract of an earlier letter from Mr. Maclear.

After mentioning his present course of observation, Mr. Maclear says,—

"Computers and copiers perform the drag-work at comparatively little expense. My experience in this climate shows, that one observer can furnish plenty of common arithmetic for two active computers. There is much of somewhat extraneous work, too, falls in my way—in person—exclusive of the functions officially known at home.

"I am well supported by Mr. Mann: his clear, methodical head has waded through eight years of tide-gauge diagrams. He is now taking a leading share in putting to rights the positions of the smaller objects of the British Association Catalogue. An account of about forty was sent to you, and about an equal number are nearly ready to follow. I cannot exactly say what the probable number of corrections will amount to, but I should think not less than 150. For my absolute right ascension of these, I cannot spare more than two or three observations with the 10-feet transit; because all stars entered in the catalogue as having 'proper motion' worth consideration, must pass that instrument. It is an invidious piece of work, but it is a matter of duty. Sir Thomas Brisbane, I am sure, will feel glad for this scrutiny of the work performed by him and at his cost; and Mr. Rümker will doubtless view the subject in the same light. Lacaille's errors are traceable mostly to *errors of entry:* for by transposing ingress for egress in the *Cœlum Australe*, and bringing up, a star is found which he is supposed to have overlooked. Such errors would happen to any observer, where several objects were in the field. His estimate of the magnitudes of the smaller stars is very rough."

Notice of Communications received lately from Mr. Maclear.

Several memoirs from Mr. Maclear have been received by the Admiralty and forwarded to the Society. As these will probably be printed in full elsewhere, it will be sufficient here to describe the contents very briefly.

The most important is "A Report from the Cape of Good Hope Observatory," giving a full explanatory account of Mr. Maclear's scientific labours up to July 1850. It is arranged under the following heads:

1. Personal establishment.
2. Instruments.
3. Astronomical work performed.
4. Measure of the arc of meridian.
5. Reductions and printing,—some general remarks follow under a sixth head.

A second memoir contains "Particulars relating to the mounting of the equatoreal Instruments at the Cape, one in 1847 and another

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in 1849." The telescope of the first, 45 inches focus, was mounted on a portable equatoreal stand, and originally belonged to the Cape Observatory. The Astronomer Royal supplied Mr. Maclear with an old polar axis (we believe by Sisson) which was not wanted at Greenwich, and this was prepared for the 45-inch telescope by Mr. Simms. Mr. Maclear received this polar axis in 1846, and, on his return from the survey in the autumn of 1847, mounted it in a suitable building. Up to this time the observatory had no equatoreal except this 45-inch telescope and stand.

In 1849 Mr. Maclear received another equatoreal more worthy of his observatory and its director. This beautiful instrument resembles very nearly that of Mr. Dawes, and indeed most of those which have proceeded from the same artist, Merz of Munich. The object-glass is 6·9 inches aperture, and 8½-feet focal length, and supports the reputation of the school of Fraunhofer.

" A new and more accurate Reduction of the Observation of the Comet of 1843" follows. A former reduction had proved faulty from the inaccurate identification of some of the stars of comparison, *when there was no equatoreal.*

" The Opposition of *Mars* in 1849-50," for the purpose of determining the parallax of the planet and of the sun, forms the fourth memoir. These have been very partially printed in the *Monthly Notices*, vol. x. p. 156, *i. e.* so far as for determining the places of *Mars*, his parallax being *assumed* to be known.

Lastly, we have two portions of a series of " Comparisons with the Heavens of the Southern Stars in the British Association Catalogue." This work was first attempted with *both* instruments, but for reasons which are obvious, Mr. Maclear has now resolved to confine himself to the mural circle alone. The transits by this instrument are *nearly* good enough for the purpose, and can always be made so by a few independent right ascensions of well-selected stars determined subsequently by the transit.

Extract of a Letter from Lieut. Gilliss, U.S.N., to Capt. Smyth, Santiago de Chile, July 28, 1850.

" Can you send me the numbers of the *Monthly Notices* through Mr. Abbot Lawrence, who I am sure will cheerfully forward them through the U. S. State department?

" Our catalogue of southern stars was not commenced until February last, between which time and the 1st of May the observations were almost uninterrupted by cloudy nights. May, June, and July, have afforded me only thirty working nights; an amount of obscure weather heretofore unknown at Santiago during the same periods: but as the winter is regarded as over, it may reasonably be expected we shall not have more than twenty unfavourable nights in the ensuing eight months.

" The field embraced by the five horizontal wires of the circle is 17′, and as they are moveable by a micrometer screw, the belt

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